



IN THE CLAIMS

Please amend the claims as follows:

Claims 1-12 (Canceled).

13. (Currently amended) A method for protecting a plant from insects comprising:
preparing a composition comprising at least one isolated polypeptide, wherein the polypeptide is

Neither rejection is believed to be applicable in light of the claim amendments submitted herein, that is, the N-terminal sequence of the protein a pea PA1b albumin defined by ~~SEQ ID NO: 1~~ having a sequence of the formula I: $X_1CX_2CX_3CX_4CX_5CX_6CX_7$, and having an insecticidal activity;

contacting a plant with the composition; and

permitting the polypeptide to exhibit insecticidal activity by interacting with an insect

~~wherein the polypeptide has at least 60% identity with SEQ ID NO:6 or SEQ ID NO:7;~~

~~wherein the polypeptide is soluble in 60% methanol;~~

wherein C represents a cysteine residue;

wherein X_1 satisfies the sequence y_1y_2 wherein y_1 represents alanine and y_2 ~~each represent an amino acid selected from the group consisting of alanine, represents serine, glycine and threonine; or~~

~~y_1 represents an amino acid selected from the group consisting of alanine, serine, glycine and threonine, and y_2 represents glutamic acid or aspartic acid;~~

X_2 satisfies the sequence $y_3y_4y_5$ wherein y_3 represents ~~glutamine or asparagine~~, and y_4 glycine and y_5 ~~each represent an amino acid selected from the group~~

~~consisting of alanine, serine, glycine, threonine, represents~~ valine, leucine, isoleucine and methionine;

X₃ satisfies the sequence y₆y₇y₈y₉y₁₀y₁₁y₁₂ wherein y₆ represents ~~an amino acid selected from the group consisting of alanine, serine, glycine and threonine~~, y₇, y₁₁ and y₁₂ each represent proline, y₈ represents ~~an amino acid selected from the group consisting of phenylalanine, tryptophan and tyrosine~~, y₉ represents aspartic acid or glutamic acid, and y₁₀ represents an amino acid selected from the group consisting of valine, leucine, isoleucine and methionine;

X₄ satisfies the sequence y₁₃y₁₄y₁₅y₁₆, wherein y₁₃, y₁₄, y₁₅ and y₁₆ each represent an amino acid selected from the group consisting of alanine, serine, glycine and threonine, or y₁₄ represents an amino acid selected from the group consisting of alanine, serine, glycine and threonine, y₁₃ and y₁₅ each represent a basic amino acid, and y₁₆ represents aspartic acid or glutamic acid;

X₅ represents a basic amino acid;

X₆ satisfies the sequence y₁₇y₁₈y₁₉y₂₀y₂₁y₂₂y₂₃y₂₄y₂₅, wherein y₁₇, y₁₉, y₂₁ and y₂₃ each represent an amino acid selected from the group consisting of valine, leucine, isoleucine and methionine, y₁₈ represents proline, y₂₀ and y₂₄ each represent an amino acid selected from the group consisting of alanine, serine, glycine and threonine, y₂₂ represents an amino acid selected from the group consisting of valine, leucine, isoleucine, methionine, phenylalanine, tryptophan and tyrosine, and y₂₅ represents an amino acid selected from the group consisting of phenylalanine, tryptophan and tyrosine;

X₇ satisfies the sequence y₂₆y₂₇y₂₈y₂₉y₃₀ wherein y₂₆ represents a basic amino acid or an amino acid selected from the group consisting of valine, leucine, isoleucine and methionine, y₂₇ represents asparagine or glutamine or a basic amino acid, y₂₈ represents

proline, and y₂₉ and y₃₀ each represent an amino acid selected from the group consisting of alanine, serine, glycine and threonine.

Claims 14 -17 (Canceled).

18. (Previously Presented) The method of Claim 13, wherein said plant is a cereal producing plant.

19. (Previously Presented) The method of Claim 13, wherein said polypeptide is present in a concentration of 10 µmol/kg to 100 mmol/kg.

20. (Previously Presented) The method of Claim 19, wherein said polypeptide is present in a concentration of 50 µmol/kg to 10 mmol/kg.

Claims 21-26 (Canceled).

27. (Previously Presented) The method of Claim 13, wherein the at least one insecticidal polypeptide is selected from the group consisting of SEQ ID NO:6, SEQ ID NO:7, and SEQ ID NO:8.

28. (Previously Presented) The method of Claim 13, wherein the at least one insecticidal polypeptide is SEQ ID NO:6.

29. (Previously Presented) The method of Claim 13, wherein the at least one insecticidal polypeptide is SEQ ID NO:7.

30. (Previously Presented) The method of Claim 13, wherein the at least one insecticidal polypeptide is SEQ ID NO:8.

31. (Withdrawn - Currently amended) A method for protecting cereal seeds or products derived from cereal seeds against an insect pest comprising:

preparing a composition comprising at least one isolated polypeptide, wherein the polypeptide is a pea PA1b albumin defined by ~~SEQ ID NO: 1~~ ~~having a sequence of the~~ formula I: X₁CX₂CX₃CX₄CX₅CX₆CX₇, and having an insecticidal activity;

contacting the cereal seeds or the products derived from cereal seeds with the composition; and

permitting the polypeptide to exhibit insecticidal properties by interacting with an insect

~~wherein the polypeptide has at least 60% identity with SEQ ID NO:6 or SEQ ID NO:7;~~

~~wherein the polypeptide is soluble in 60% methanol;~~

wherein C represents a cysteine residue;

wherein X_1 satisfies the sequence y_1y_2 wherein y_1 represents alanine and y_2 ~~each represent an amino acid selected from the group consisting of alanine, represents~~ serine, ~~glycine and threonine;~~ or y_1 ~~represents an amino acid selected from the group consisting of alanine, serine, glycine and threonine,~~ and y_2 ~~represents glutamic acid or aspartic acid;~~

X_2 satisfies the sequence $y_3y_4y_5$ wherein y_3 ~~represents glutamine or~~ asparagine, and y_4 represents glycine and y_5 ~~each represent an amino acid selected from the group consisting of alanine, serine, glycine, threonine, represents~~ valine, ~~leucine, isoleucine and methionine;~~

X_3 satisfies the sequence $y_6y_7y_8y_9y_{10}y_{11}y_{12}$ wherein y_6 ~~represents an amino acid selected from the group consisting of alanine, serine, glycine and threonine,~~ y_7 , y_{11} and y_{12} each represent proline, y_8 ~~represents an amino acid selected from the group consisting of~~ phenylalanine, ~~tryptophan and tyrosine,~~ y_9 represents aspartic acid or glutamic acid, and y_{10} represents an amino acid selected from the group consisting of valine, leucine, isoleucine and methionine;

X_4 satisfies the sequence $y_{13}y_{14}y_{15}y_{16}$, wherein y_{13} , y_{14} , y_{15} and y_{16} each represent an amino acid selected from the group consisting of alanine, serine, glycine and

threonine, or y_{14} represents an amino acid selected from the group consisting of alanine, serine, glycine and threonine, y_{13} and y_{15} each represent a basic amino acid, and y_{16} represents aspartic acid or glutamic acid;

X_5 represents a basic amino acid;

X_6 satisfies the sequence $y_{17}y_{18}y_{19}y_{20}y_{21}y_{22}y_{23}y_{24}y_{25}$, wherein y_{17} , y_{19} , y_{21} and y_{23} each represent an amino acid selected from the group consisting of valine, leucine, isoleucine and methionine, y_{18} represents proline, y_{20} and y_{24} each represent an amino acid selected from the group consisting of alanine, serine, glycine and threonine, y_{22} represents an amino acid selected from the group consisting of valine, leucine, isoleucine, methionine, phenylalanine, tryptophan and tyrosine, and y_{25} represents an amino acid selected from the group consisting of phenylalanine, tryptophan and tyrosine;

X_7 satisfies the sequence $y_{26}y_{27}y_{28}y_{29}y_{30}$ wherein y_{26} represents a basic amino acid or an amino acid selected from the group consisting of valine, leucine, isoleucine and methionine, y_{27} represents asparagine or glutamine or a basic amino acid, y_{28} represents proline, and y_{29} and y_{30} each represent an amino acid selected from the group consisting of alanine, serine, glycine and threonine.